

- education, training and information sharing addressing wildfire risks and mitigation measures.
3. Protection of Resources: Identify resources that are at risk to wildfires and implement natural resource planning to protect these resources. To include protection and mitigation of at risk watersheds, vegetation, fish, wildlife and maintain soil stability.
 4. Values: Scenic, historical, cultural.

Implicit in these priorities are the need to:

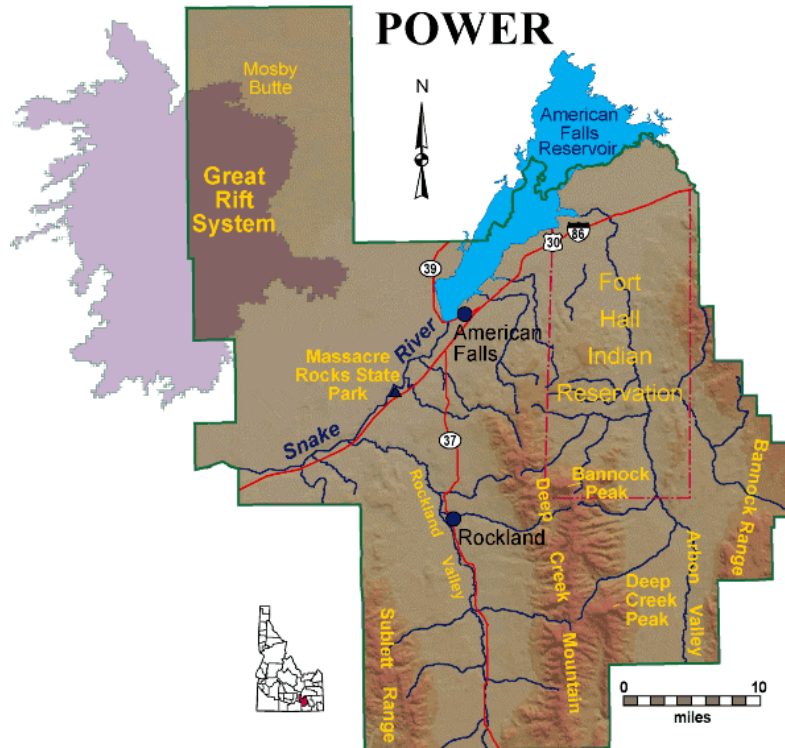
Improve Wildfire Emergency Services: Improve county infrastructure and wildfire emergency service planning, training, communications, and equipment.

Increase Public Awareness of Wildfire Prevention: Increase public awareness of firewise practices and wildfire prevention through education training and information sharing.

Improve Partnerships for Implementation: Utilize partnerships currently established and develop additional participation with State, Federal, and private organizations.

Power County Profile

Power County encompasses a diverse landscape within its 1,450 square miles. The southern portion of the county includes the classic Great Basin landscape of the Arbon and Rockland Valleys. The Arbon Valley lies between the Bannock Range (and the Bannock County border), to the east and the Deep Creek Mountains. At 8,670 feet above mean sea level, Deep Creek Peak is the county's highest point. West of the Deep Creeks are the Rockland Valley and the Sublett Range, through which runs the Power-Cassia County line. North of the Arbon and Rockland Valleys rolling hills descend to the relatively level farmlands of the Snake River Plain, the Snake River, and American Falls Reservoir. This 61,000-acre reservoir is part of the Minidoka Irrigation Project and an important recreational resource for southeastern Idaho. The Union Pacific Railroad and I-86 follow the Snake River and the route of the old Oregon Trail through the county, providing excellent accessibility for a rural area. North of the Snake River Plain, Power - County stretches into the lava fields of the Great Rift Desert.



The total land area of Power County is approximately 929,000 acres. Private lands comprise about 47% of that acreage (~440,345 acres). Roughly 17% of the county is included within the Fort Hall Indian Reservation (~158,000 acres) and the remaining 36% (~330,655 acres) is in State or Federal ownership. Reservation lands are found in the northeastern portion of the county. Public lands, most of which are managed by the Federal Bureau of Land Management, are concentrated in the lava fields northwest of American Falls and the mountain ranges of the southern portion of the county. The county's Public Lands are generally leased for grazing, while virtually all private lands are used for crop production or grazing (Appendix A, Map 1 County Land Ownership.).

Current Population and Population Trends

Power County's population has experienced some change in recent decades.

Population, 2001 estimate ²	7,468
Population percent change, April 1, 2000-July 1, 2001	-0.9%
Population, 2000	7,538
Population, percent change, 1990 to 2000	6.4%

The largest community in Power County is the county seat, American Falls. This small city has about 4,111³ residents and is located immediately south of the falls on the Snake River from which it takes its name. The main part of the city was established in its

² US Census Bureau, Quick Facts for Power County, Idaho
(<http://quickfacts.census.gov/qfd/states/16/16077.html>)

³ Power County Commissioners February, 2004

present location in 1925, when construction of American Falls Reservoir, which eventually covered the original town site, began. The only other incorporated city in Power County is Rockland, a former farm service center for the lower Rockland Valley that now has a population of about 300.

The population of American Falls has consistently made up just over half of the county total (it was 53.0% in both 1980 and 1990). There has been some decline in the population share of the Rockland Valley, which included 6.3% of the county's people in 1960, but only 3.7% in 1990. Several eastern Idaho counties (including Bingham, Butte, and Oneida) experienced overall population growth, but a decline in their urban population share during the 1980s. That trend toward exurban residential development was not evident in Power County, where American Falls captured 54.1% of all growth during the 1980s.

Shoshone-Bannock Tribe/Ft. Hall Reservation

Roughly 17% of the county is included within the Fort Hall Indian Reservation (~158,000 acres). Power County is fully within the Tribes' aboriginal homeland. In fact, archaeological evidence indicates that American Indians occupied it for at least 12,000 years. The Fort Bridger Treaty of 1868 secured the Fort Hall Reservation as the permanent homeland of the Shoshone-Bannock Tribes. But the aboriginal rights reserved by the treaty extend to unoccupied lands of the United States, reserving hunting, fishing, and gathering rights for tribal members.

Climate

The area's semi-arid climate is the result of the Cascade and Sierra mountains to the west and the Bitterroot and Rocky Mountains to the north that effectively block Pacific moisture. The success of local agriculture is dependent on spring runoff from the snow pack, summer thunderstorms, and irrigation, both from deep wells and a system of canals supplied by storage reservoirs on the Snake River.

Summer may begin suddenly with a rapid change to warm and dry weather, but chilly nights can persist into early July. Showers and/or thunderstorms are common from late spring through summer. These storms often produce very localized precipitation. Brief heavy rain, lightning, small hail, and gusty winds may cause very localized damage at times. Long periods of excessively hot weather in July and August are uncommon. Afternoon temperatures often rise into the 90s, however low humidity usually results in overnight temperatures in the 50s or even cooler.

During winter, brisk southwesterly winds often persist for days or weeks. These winds may moderate cold winter conditions, producing unusually mild temperatures compared to surrounding areas. There are usually a number of days each winter when temperatures remain below freezing. Sub-zero temperatures usually occur only a few days each winter. During especially cold outbreaks, snowfall may accumulate to a depth of a foot or more. Cloudy and unsettled weather is common during the winter with measurable precipitation occurring on about one-third of the days.

Spring months are normally wet and windy. Winds of 20 to 30 mph may persist for days at a time. Weather conditions fluctuate quickly during the spring. Thunderstorms are not uncommon, and are usually accompanied by rain showers and occasional snow. Autumn ushers in cooler weather with daytime highs generally in the 70s in early fall dipping into the mid 40s by mid November with generally dry conditions. Autumn storms are usually very fast moving, and seldom persist for more than a few days.⁴

American Falls Monthly Climate Summary⁵
Period of Record: 8/ 1/1948 to 3/31/2003

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (°F)	33.0	38.7	48.0	59.1	68.5	78.0	87.2	86.2	76.2	62.7	45.8	34.9	59.9
Average Min. Temperature (°F)	16.6	20.7	27.0	33.8	41.4	48.1	54.2	52.9	44.5	35.1	26.9	19.2	35.0
Average Total Precipitation (in.)	1.05	0.83	1.05	1.09	1.49	0.97	0.52	0.59	0.72	0.81	1.05	0.97	11.13
Average Total SnowFall (in.)	9.1	4.7	3.1	1.3	0.4	0.0	0.0	0.0	0.0	1.3	2.7	7.0	29.7
Average Snow Depth (in.)	3	2	0	0	0	0	0	0	0	0	0	1	1

Vegetation⁶

The natural vegetation of the area typically consists of a shrub overstory with an understory of perennial grasses and forbs. The most common shrub is Wyoming big sagebrush (*Artemisia tridentata* subspecies *wyomingensis*). Basin big sagebrush (*Artemisia tridentata* subspecies *tridentata*) may be dominant or co-dominant with Wyoming big sagebrush on sites having deep soils or accumulations of sand on the surface (Shumar and Anderson 1986). Communities dominated by big sagebrush occupy most of the northern portions of the County. Green Rabbitbrush (*Chrysothamnus viscidiflorus*) is the next most abundant shrub in many of these communities. Other common shrubs include gray rabbitbrush (*Chrysothamnus nauseosus*), winterfat *Krascheninnikovia lanata*, spiny hopsage (*Grayia spinosa*), prickly phlox (*Leptodactylon pungens*), broom snakeweed (*Gutier-rezia sarothrae*), and horse-brush (*Tetradymia canescens*).

Utah juniper (*Juniperus osteosperma*), threetip sagebrush (*Artemisia tripartita*), and/or black sagebrush (*Artemisia nova*) often dominate communities on the periphery on slopes of the buttes, alluvial fans, and the foothills of adjacent mountains.

The most common native grasses include thick-spiked wheatgrass (*Elymus lanceolatus*), bottlebrush squirreltail (*Elymus elymoides*), Indian ricegrass (*Oryzopsis hymenoides*), needle-and-thread grass (*Stipa comata*), and Nevada bluegrass (*Poa secunda*). Patches of creeping wildrye (*Leymus triticoides*) and western wheatgrass (*Pascopyrum smithii*) are

⁴ From National Weather Service, Pocatello Station web site.
<http://www.wrh.noaa.gov/Pocatello/climate/descrip.html>

⁵ <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?idamer>

⁶ <http://www.stoller-eser.com/Flora/vegetation.htm>

locally abundant. Bluebunch wheatgrass (*Pseudoroegneria spicata*) is rare at the lowest elevations but is common at slightly higher elevations to the southwest and along the eastern side it is often the dominant grass on alluvial fans and slopes of the buttes and foothills.

Power County, like most counties in southeast Idaho, is also facing a growing problem with noxious and invasive plant species. This problem is a result of past wild fires in the county and is a major contributor to the continued fire cycle on fire-disturbed land within the county.

The county also has extensive areas in the Natural Resources Conservation Services' Conservation Reserve Program (CRP). The program encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filterstrips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. Cost sharing is provided to establish the vegetative cover practices. Approximately 37% of Power County cropland has been placed in the CRP for protection of sharp-tailed grouse habitat. Generally CRP land is limited to no more than 25% of cropland within a county unless special exception to the limit is granted.

Geology

The eastern Snake River Plain is underlain by volcanic rock (primarily basalt with lesser amounts of rhyolite) and relatively thin layers or lenses of sedimentary material that thin towards the center of the basin. The origin of the Snake River Plain is attributed to several geologic processes.⁷ Migration of the North American continent over a region of high heat flow (plume or hot spot) in the earth's upper mantle resulting in large volumes of volcanic material being erupted. The age of the volcanic events generally progresses from oldest, about 13 million years ago, to the youngest episodes currently ongoing, traversing from west to east across southern Idaho.

Basins filled with unconsolidated deposits were formed by faulting or erosion or both. Thick sequences of unconsolidated deposits that have variable permeability are common in these basins. In some basins, these deposits might be as much as 5,500 feet thick. Basins in areas where the bedrock consists of volcanic, igneous, and metamorphic rocks typically contain extremely permeable aquifers that consist of coarse sand, gravel, and cobbles that were eroded from the parent rocks. The deposits typically are coarser grained near the margins of the basins and finer grained near the center of the basins.⁸

Soils

Soils in the County are predominately silt loams (42% by acreage), followed by soil complexes (35%) and rock outcrop or lava flows (8%)⁹. Soil erosion is the major

⁷ <http://imnh.isu.edu/digitalatlas/hydr/snakervr/osrp.htm>

⁸ http://capp.water.usgs.gov/gwa/ch_h/H-text2.html

⁹ SOIL SURVEY OF POWER COUNTY AREA, IDAHO, 1982.

problem on most of the land in the survey area. If the soil is irrigated, and the slope is more than 2 percent, erosion is a hazard.

Wildlife

Power County has over 80 different species of mammals occupying the County's wide variety of habitats. The Idaho Department of Fish and Game manages wildlife populations and the USDA - Forest Service, Bureau of Land Management, U.S. Army Corps of Engineers, and Idaho Department of Lands are responsible for wildlife habitats on lands they manage. Large mammals that are found in Power County include: mule deer (*Odocoileus hemionus*), whitetail deer (*Odocoileus virginianus*), elk (*Cervus elaphus*), black bear (*Ursus americanus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), wolverine (*Gulo gulo*). Other mammals within the county are snowshoe hare (*Lepus americanus*), cottontail rabbit (*Lepus sylvaticus*), red fox (*Vulpes vulpes*), badger (*Taxidea taxus*), beaver (*Castor canadensis*), pine marten (*Martes americana*), North American porcupine (*Erethizon dorsatum*), striped skunk (*Mephitis mephitis*), and several species of bats.

Upland birds present in Power County include: blue grouse (*Dendragapus obscurus*), spruce grouse (*Falcapennis canadensis*), sharp-tailed grouse (*Tympanuchus phasianellus columbianus*), chukar partridge (*Alectoris chukar*), gray partridge (*Perdix perdix*), California quail (*Callipepla californica*), mountain quail (*Oreortyx pictus*), ring-necked pheasant (*Phasianus colchicus*). Raptor species found are: golden eagle (*Aquila chrysaetos*), osprey (*Pandion haliaetus*), prairie falcon (*Falco mexicanus*), red-tailed hawk (*Buteo jamaicensis*), wintering bald eagles (*Haliaeetus leucocephalus*).

Over 70 species of birds associated with water are found in meadows, rivers, streams, lakes, reservoirs, and small ponds within the County. Waterfowl present include: Canada goose (*Branta canadensis*), wood duck (*Aix sponsa*), mallard (*Anas platyrhynchos*), gadwall duck (*Anas strepera*), common merganser (*Mergus merganser*), common goldeneye duck (*Bucephala clangula*), bufflehead duck (*Bucephala albeola*). Shore birds include: rails (Rallidae), killdeer (*Charadrius vociferus*), curlews (*Numenius* sp.), plovers (Charadriidae), sandpipers (Scolopacidae), yellowlegs (*Tringa* sp.), and phalaropes (*Phalaropus* sp.) common loon (*Gavia immer*) grebes (Podicipedidae), herons (Ardeidae) shearwaters (Procellariidae) cormorants (*Phalacrocorax* sp.), and American white pelican (*Pelecanus erythrorhynchos*) can also be found in the County.

Over 140 song birds are common to Power County with more being identified each year. Common song birds seen in Power County include: woodpeckers (Picidae), American robin (*Turdus migratorius*), crows and jays (Corvidae), dippers (*Cinclus* sp.) blue birds (*Sialia* sp.) hummingbirds (Trochilidae) sparrows (Hirundinidae and Emberizidae) finches (Fringillidae), grosbeaks (Cardinalidae), common raven (*Corvus corax*), waxwings (*Bombycilla* sp.), wrens (Troglodytidae), nuthatches (*Sitta* sp.), and warblers (Parulidae). Power County also serves as a major migration route to songbird wintering areas.

Just North of Power County is the Idaho National Engineering and Environmental Laboratory (INEEL). The INEEL is a Natural Environmental Research Park and may serve as a comparison site for Power County. Based on comparison with the INEEL the Federal-listed threatened or endangered animal species potentially occurring in Power County include the peregrine falcon (*Falco peregrinus*) and bald eagle (*Haliaeetus leucocephalus*). The bald eagle and the American peregrine falcon have been observed on the INEEL.

Archeological and Historic Sites

There are several sites of archeological and historical interest in Power County. Four are on the National Register of Historic Places: the county courthouse in American Falls; the East Shore Power Plants below American Falls Dam; portions of the Oregon Trail in the western part of the county; and Register Rock, an Oregon Trail site. Other structures and sites may be eligible for the register, including prehistoric sites along the Snake River.

Recreation

Power County is included in Region 4 of the *STATEWIDE COMPREHENSIVE OUTDOOR RECREATION AND TOURISM PLANNING* document¹⁰ (SCORTP). Region 4, which has traditionally been a travel corridor from Yellowstone to Boise is beginning to diversify its economic base. Major infrastructure investments by federal, state and local governments and the private sector in traveler services are also underway.

As a direct product of the Region 4 Rural Tourism Development Plan, the region has established the South Central Idaho Tourism & Recreation Development Association (SCITRDA). This is a regional network of individuals and organizations (Region 4 Recreation Forum, Region 4 Travel Committee and the Region 4 Development Association) with representation from state and federal agencies. SCITRDA is dedicated to enhancing the leadership and decision-making capabilities of the region.

Region 4's population is growing, incomes are rising and communities in the region are developing new and innovative traveler attractions, including visitor centers, historic sites and convention facilities. As the population in counties adjacent to Power County have increased, the recreational use of Power County's Federal and State lands has also increased. Summer and winter recreational activities available in Power County are also enjoyed by outdoor enthusiasts on a national, as well as international basis.

American Falls reservoir is a major recreational attraction in the county and region. Water based recreational activities in Power County include: boating, water skiing, fishing, rafting, kayaking, swimming, and hot springs visitation. Land based activities include, but are not limited to: camping, hiking, mountain biking, birding, hunting, snowmobiling.

¹⁰ Idaho Statewide Comprehensive Outdoor Recreation And Tourism Planning: Assessment And Policy Plan, July, 1998

Hydrology

The Snake River and American Falls Reservoir are the major hydrologic features within the county. The Snake River traverses the northern portion of the county from the Northeast to the Southwest. Rock Creek flows through Rockland valley from the south eventually emptying into the Snake River. Numerous tributaries originate in the southwest portion of the County on the Sawtooth National Forest to feed Rock Creek. Bannock Creek flows North through Arbon valley and eventually feeds the American Falls reservoir.

The American Falls reservoir was formed in 1927 as part of the Minidoka Irrigation district and is an important recreational resource for southeastern Idaho. The reservoir is approximately 61,000 acres in size and is shared by Power, Bingham and Bannock Counties.

Transportation and Commuting

For an area of over 1,450 square miles, Power County has a very limited network of improved highways. Timing, location, and expansion of transportation networks are important issues affecting future access.

Major routes in the County are:

- Interstate 86/US Highway 30 running diagonally across the northern portion of the county and connecting Twin Falls, American Falls, Chubbuck/Pocatello.
- State Highway 37 running north and south through Rockland valley and connecting American Falls with Rockland and Holbrook.
- State Highway 39 running north and south connecting American Falls with Aberdeen.
- Arbon Highway running north and south through Arbon valley and connecting I-86 with Arbon and Malad City.

The Power County Highway District is responsible for maintenance, and construction of 688 miles of rural road (567 miles of which are improved). Road funds come largely from state and federal sources. There is extensive use of the road system in Power County by out-of-county traffic. The existence of Federal forests and Public Lands draws some numbers of recreational users participating in various spring, summer, fall and winter activities.

The Union Pacific railroad has a rail line traversing the northern portion of the County in a general east-west direction.

The Forest Service and BLM have built and maintained numerous two-lane gravel roads throughout the county for recreation, logging, ranching and mining. Some of these have been closed and some are currently gated with access allowed for seasonal use or during a wildfire. Additionally, there are numerous miles of dirt roads and trails that are not maintained by Federal, State, private or county entities. These roads provide access to many of the remote areas of the county but are generally only known to local residents and recreationist.

Aviation Facilities

There are two airports in Power County: American Falls and Pocatello Municipal. The Pocatello Municipal airport supports regularly scheduled commercial air service to Salt Lake City. The American Falls airport provides support for agricultural and private air operations.

Emergency Services

Law enforcement is provided by the Power County Sheriff throughout the county. Law enforcement is also provided within and by the municipalities of American Falls and Rockland. Ambulance services are located in American Falls and Rockland. Volunteer and Rural Fire Departments are located at and provide service to American Falls and Rockland. The U.S. Forest Service, IDL and BLM provide wildfire protection in much of Power County.

Hazard Identification, Location, Risk

Power County has been the site of numerous large wildfires over the past thirty years. The fuels, weather and topography in Power County combine to make wildfire an annual hazard with associated risks. The most recent large fires to impact Power County and its residents occurred in 2000. During the summer of 2000, a severe dry lightening storm passed through the county igniting several fires in the county and particularly within the Shoshone-Bannock reservation. The result was four major fires that eventually combined into a single Eastern Idaho Complex fire. Fires occurring in 2000 were:

- Moonshine Fire (greater than 30,000 acres)
- Rattle Snake Fire (2,318 acres)
- Fisher Creek Fire (greater than 37,000 acres)
- Green Canyon Fire (1,745 acres)
- Flat Top Fire (57,477 acres)

Also in 2000, but not part of the complex fire described above, was the Flat Top fire. This fire eventually burned over 55,000 acres of which 15,000 were in Power County. In 1996, the Cox Wells fire ignited in the northern portion of the county on Public land and eventually burned over 219,000 acres. Both fires were lightening caused.

Traditionally lightening causes 51% of the fires within Eastern Idaho and 49% are human caused¹¹. Additionally, there were numerous small fires started by farm equipment working in the fields. These fires were numerous in number, but small in size due to the inability of the farmed fields to carry a fire and because the farmers would extinguish the fires as quickly as they would start.

With the inclusion of previously farmed fields into the CRP program there has been fewer fires started by farm equipment. However, there is a growing concern with Power County residents that while the number of fires has gone down, the potential for larger,

¹¹ <http://www.fs.fed.us/r4/caribou-targhee/EIIFC/Data/Data/Statistics.htm>